

ROTARY ELECTRIC MOTOR HAVING CONTROLLER AND
POWER SUPPLY INTEGRATED THEREIN

Abstract of the Disclosure

A rotary electric motor is formed within a cylindrical rotor housing structure that surrounds an annular stator ring. The permanent magnet rotor is configured in an annular ring coaxial with, and outside of, the stator.

The stator ring contains a plurality of wound core segments that are

5 ferromagnetically isolated from each other. The core segments are secured to a rigid skeletal structure that is centrally fixed to a stationary shaft. The stator support structure is formed of spine members that extend radially away from the center. U-shaped plates at the outer ends of the spine members engage adjacent pair of stator segments. Within the inner periphery of the stator ring,

10 space is provided within which motor control circuitry and battery power supply may be incorporated.